CP212 Assignment 5 Overview and Documentation

Ryan Chisholm

169027577

[Chis7577@mylaurier.ca](mailto:Chis7577@mylaurier.ca)

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A screenshot of a computer

Description automatically generatedOverview

This application takes data from a selected Microsoft access database, then computes it into statistics, graphical representations and other collections. A user may begin by selecting a database to import, than they may choose a course to filter grading data from, or all courses, and it will be displayed on the ‘StudentDetails’ sheet within the workbook.

A screenshot of a computer screen

Description automatically generatedThe user may also generate a chart from the selected data for a specific graded assignment, a scatter plot will be generated to show the data, and the values and columns will be visualized on the ‘Charts’ sheet in the workbook.

A screenshot of a computer

Description automatically generated

The user can also choose to simply view the class average for a specific course, the average will be shown in a message box and the data will be visualized in the ‘Average’ sheet in the workbook.

Lastly, the user may also choose to generate a report on the data in the form of a word doc (.docx), this can be done by selecting ‘Generate Report’ once the data is imported, this report returns some statistics about the data, and a distribution chart, and some explanations of what the data means.

Documentation

When using the application, the database must be re-imported each time the program is run, as once it is terminated all existing data is lost. The database imported must be a Microsoft access database file (.mdb), and it must be of the form:

Table: grades

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Id | Student\_id | Course | Assignment 1 (grade) | Assignment 2 (grade) | Assignment x (grade) | Midterm exam (grade) | Final Exam (grade) |
|  |  |  |  |  |  |  |  |

Table: courses

|  |  |  |
| --- | --- | --- |
| Id | CourseCode | CourseName |
|  |  |  |

Table: students

|  |  |  |
| --- | --- | --- |
| FirstName | LastName | studentID |
|  |  |  |